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ABSTRACT

An extension of a project that examined the associations between parental responses to children's emotional upset and children's competence in preschool, this study focuses on gender differences in the socialization of competence. Parents' warmth and responsiveness, firmness and control, and responses to their children's emotional upset were assessed in 30 families. Parent self-reports, observer ratings, home observations, and a projective interview measure were used. In the projective interview, children were asked to finish stories by saying how parents would respond when the story child confronted emotionally stressful events. Children's competence was assessed by administering the Peabody Picture Vocabulary Test and by having the child's teacher complete Baumrind's Preschool Behavior Q-Sort. In general, gender differences in socialization were outweighed by gender similarities. Mothers and fathers showed no mean differences in measures of warmth, control, or responsiveness to children's emotional upset. Boys and girls were equally cooperative with their parents as well as with their peers and preschool teachers. Two sex-of-child differences emerged: fathers were more firm with their sons, and girls attributed more comforting responses to story parents on the projective measure. Despite the few observed differences in socialization practices, consistent mean differences were found on the outcome measures. Girls were rated as being more socially competent in preschool. (Author/CB)

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Sex Differences in the Socialization of Competence in Preschoolers

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Author Notes

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Abstract

This paper concerns gender differences in the socialization of competence. Parents' warmth and responsiveness, firmness and control, and responses to their children's emotional upset were assessed for 30 families using self reports, observer ratings, home observations, and a projective measure. Competence was assessed by Baumrind's Preschool Behavior Q-Sort and the Peabody Picture Vocabulary Test.

In general, gender differences in socialization were outweighed by gender similarities. Mothers and fathers showed no mean differences in measures of warmth, control, or responsiveness to children's emotional upset. Boys and girls were equally cooperative with their parents as well as with their peers and preschool teachers. Only two sex-of-child differences emerged: fathers were more firm with their sons, and girls attributed more comforting responses to story-parents on the projective measure. Despite the few observed differences in socialization practices, consistent mean differences were found on the outcome measures. Girls were rated as more competent overall in preschool, and were higher on 4 of 11 individual

scales assessing various aspects of competence.

Sex Differences in the Socialization of Competence in Preschoolers

The original objective of this project was to examine the associations between parental responses to children's emotional upset and children's competence in preschool. Parental responses to upset were assessed in the context of other relevant dimensions of parenting (such as warmth, responsiveness, and control), using home observations, parent self reports, observer ratings, and a child projective measure.

The main results of this project are reported in detail elsewhere (Roberts, 1983; Roberts, in preparation; Roberts and Strayer, in preparation), but can be summarized briefly as follows: (1) For both warmth and control, non-linear relationships were found of the sort predicted by a 3-dimensional topological model of the relationships between these aspects of parenting and child competence. (2) As expected, parental warmth, not control, showed the strongest associations with child competence, accounting for 57% of the variance in an aggregate measure of general competence. (3) Parental responses to children's emotional upset emerged as a major aspect of parenting, often accounting for more of the variance in child outcomes than did measures of parental firmness and control. (4) Both observer and fathers'

reports of encouraging the expression of negative affect in children were positively related to measures of child competence. On the projective measure, children's attributions to parents of pragmatic, situationally appropriate responses to emotional upset were also positively related to competence. (Pragmatic responses were, in fact, the type of response most often made by parents.) While these two approaches tended to be viewed by the children as mutually exclusive, theoretical considerations suggest that an optimal parental response to upset would incorporate features of both.

Although the focus of this research project was not on sex differences per se, such differences emerged. This paper focuses on these differences, presenting them in terms of three of the four gender-linked issues identified by Maccoby and Martin (1983) whether mothers and fathers parent differently, whether boys and girls are parented differently, and whether boys and girls respond differently to similar socialization pressures. The gender differences found in relative competence will be discussed in the light of the gender differences found in socialization.

Method

Thirty two-parent families with a child in preschool or daycare (mean age, 4.3 years) participated in the study. Nineteen were girls and 11 were boys. The Duncan Socio-Economic Index was calculated for the parent with the highest income (usually the father), and ranged from 33 to 92, with a mean of 67 (Mueller and Parcel, 1981).

Family interactions were assessed by four methods. Each parent completed the Child Rearing Practices Q-Sort (Block, undated), a 91-item set distributed by the parent into 7 categories ranging from "least descriptive" to "most descriptive" of their own parenting practices. Four scales were constructed for each parent from this Q-sort (Strict, Warm, Involved as Parent, and Encourages Emotional Expression). Items for each scale were assembled rationally, then tested empirically (those with an item-total correlation less than .40 were deleted).

A home observation session was done, lasting from suppertime until the child's bedtime (approximately two hours). Behaviors were coded according to an 85-category system, as described below. Behaviors were recorded, along with the initiator and target individuals, on a small computerized encoder. A focal-individual sampling strategy was used, with 10-minute sessions alternating between the child and each parent.

The intention of the coding scheme was to provide a comprehensive running record of family interactons. To this end, activities (e.g., "watches TV") were coded, along with social initiations (e.g., "speaks", "directs") and social responses (e.g., "ignores, no response","complies"), as well as agonistic exchanges (e.g., "hits"). Affective categories (e.g., "cries") were also included. Full details are in Roberts (1983).

Percent agreement and Kappa were calculated for the categories considered as a set by comparing the categories coded at each second, thus placing a premium on inter-rater timing as well as on inter-rater agreement. Under these stringent conditions, the number of agreements divided by agreements plus disagreements equaled 79.2%, and the value for Kappa was .723. In later analyses, some of these categories were combined, so that actual reliability values are somewhat higher.

In addition to summary observation variables (in which the frequency for a category is reported as a percentage of all events recorded for the family), other variables were formed on the bases of contingencies derived from lag analyses of the data. Variables that were closely linked conceptually and empirically were transformed into z-scores and aggregated.

Following the observation session, the observer completed 46 Parent Rating Scales (Baumrind, 1970a, 1970b). Four aggregate scales were derived from the individual Parent Rating Scales following Baumrind (1971). These were Firm, Directs, Warm, and Responsive (this last scale was called by Baumrind "Encourages Independence and Individuality"). In addition, a fifth scale was developed, Encourages Expression of Negative Affect.

The final measure of family interactions was a projective interview measure given to the children. This measure, called the Unfinished Stories, was devised for the present study. It consists of 10 short story stems in which the story child confronts a number of emotionally stressful events. The target child completes each story by saying how the story parents would respond. The story characters were represented by a family of dolls, which the child was encouraged to manipulate along with accompanying props.

Responses were tape recorded, transcribed, and scored for the reactions of the story parents (e.g., "comforts", "responds by taking pragmatic, appropriate action"). Inter-rater agreement divided by agreements plus disagreements was 90.9%. Scores for each category of response were standardized by dividing the frequency of occurrence by the number of stories scored for each child. In addition, since the categories lie along a dimension of

responses from those thought to encourage the expression of negative affect to those thought to make it most difficult, a summary index was derived by calculating the mean overall response. (High scores on this index indicate comforting.)

Competence was assessed by having each child's preschool or daycare teacher complete the Preschool Behavior Q-Sort (Baumrind, 1968). A criterion sorting for competence was developed. The Q-Sort provided by the teacher was correlated with this criterion sort as a measure of the child's overall competence.

In addition, nine scale scores were calculated from the Preschool Behavior Q-Sort as measures of competence in specific areas. Four of the nine scales were from Baumrind (1971) (Friendly vs. hostile to peers, Cooperative vs. resistive with adults, Purposive vs. aimless, and Achievement Oriented), two were from Waters, Wippman, and Sroufe (1979) (Peer Competence and Ego Strength), and three were devised for this study (Sociable, Socially Effective, and Happy).

The Peabody Picture Vocabulary Test (PPVT) was chosen both as a measure of verbal competence, and because scores on such a standardized test are thought to reflect the ability of the child to perform in a mildly stressful situation in compliance to the demands of an adult stranger.

Each family was seen four times. The parents' Q-Sorts were dropped off and picked up on the first two visits. The home observation session constituted the third visit, while the Peabody was given during the fourth, along with the Unfinished Stories.

Results

Variable Aggregation. Variables assessing children's competence and parental control and warmth were grouped conceptually and then aggregated on the bases of cluster and factor analyses. The variables assessing parental responses to emotional upset were not aggregated, however, since they reflect distinct sources of information (i.e., from the points of view of the parents, the child, and an outside observer), as well as being of special theoretical interest.

In the sections that follow, gender-linked differences are reported from three levels of analysis. The first and finest level contains the individual items from the Child Rearing Practices Q-sort, completed by the each parent. At a medium level are the scales derived from this Q-sort and the Preschool Behavior Q-sort, as well as the observation and projective variables. Finally, at the highest or most abstracted level are the aggregates reflecting parental warmth and control and child competence, as mentioned above.

Gender Differences. Three of the four sex-linked issues identified by Maccoby and Martin (1983) are addressed in this section, along with mean differences (or relative deficits) on the outcome measures.

The first issue is whether there are differences in the behavior of mothers and fathers. For this sample, the answer is method and level dependent. Analysis of the individual items in the Child Rearing Practices Q-Sort (as shown in Tables 1 and 2) revealed that mothers are more concerned about supervision, and describe themselves as warmer, more supportive, and more responsive to children's emotions. Fathers, on the other hand, value competetiveness more than mothers.

Insert Table 1 about here

Insert Table 2 about here

The tendency for fathers to be somewhat more authoritarian than mothers is indicated by the correlations in Table 3.

Insert Table 3 about here

The differences apparent between mothers and fathers at this fine level of analysis tend to disappear when items are aggregated into scales. While fathers describe themselves as more Involved as Parents, the overall impression at a medium level of analysis is one of similarity between parents across self report, observational, and projective measures (Table 4).

Insert Table 4 about here

A second issue is whether parents treat boys and girls differently. For this sample, there are suggestions across methods that they do. As shown in Table 5, parents tend to be more strict, rejecting, and controlling with boys, and somewhat less responsive to their expression of emotional upset. These findings parallel those reported by Baumrind, 1971, and Block, 1983.

Insert Table 5 about here

As with sex-of-parent differences, sex-of-child differences are most apparent at a fine level of analysis. However, two higher level differences (in Father Firm and the projective variables) suggest that learned helplessness may be an important underlying construct, as Baumrind (1977)

hypothesizes. The observation variable Father Firm (unlike self-reported firmness) correlates positively with measures of warmth and responsiveness; for boys, it also correlates positively with General Competence ($r = .68$, $p < .05$). This suggests that observed firmness (along with responsiveness) may be providing contingent situations in which boys are learning to be effective social agents. For girls, on the other hand, certain situations seem salient in which learned helplessness may be occurring. Girls attribute more comforting to story parents on the projective measure. Given the actual preference of parents for taking effective action response to child upset (for instance, by resolving conflicts) comforting may well be given most often in situations in which effective action is not possible or at least not obvious (as when the child is hurt in a fall, but not seriously enough to demand first aid). Comforting, then, may mark occasions in which the child learns to accept passively unpleasant or stressful events. This hypothesis is consistent with the negative correlations for both sexes between attributed comforting and General Competence (for girls, $r = -.48$, $p < .05$).

A third issue is whether boys and girls differ in their reactions to a given socialization practice. Here, the answer seems to be "sometimes". As Table 6 shows, observed responsiveness and firmness seem to be more important for

boys than girls.

Insert Table 6 about here

Cooperation and compliance may be an area in which similar outcomes are associated with different processes. Girls' cooperativeness seems linked with parental responsiveness to affect, while boys' cooperation seems linked to unresponsiveness to affect. Specifically for girls, attributed parental responsiveness to child upset (as measured by the summary index to the Unfinished Stories) is positively correlated to Responds to Mother Directs; for boys, the relationship is negative (r_s= .61, p< .01 and -.59, p< .10, respectively). In addition, stepwise regressions to Cooperative-Task Oriented suggest a similar pattern in preschool. There, attributed unresponsiveness loads negatively for girls, but positively for boys.

Finally, there is the issue of mean sex differences or relative deficits on outcome measures. These were the strongest gender differences found in the present study. As Table 7 shows, girls performed relatively better overall. However, the strong difference found by Baumrind (1971) in Friendly and Cooperative behavior failed to emerge in this sample.

Insert Table 7 about here

Robustness of Gender Differences. In order to assess the reliability of the mean differences reported here, three statistical strategies were used. The first, of course, is the use of the traditional statistics t and F, which assess the likelihood of a given mean difference occurring by chance. In addition to this, two tests of robustness were carried out. One was the trimmed-t, a technique in which the maximum and minimum values in each group are excluded, since the value of t is sensitive to outliers in the data. This statistic has been cited in the tables whenever appropriate. The final test of robustness involved bootstrap analyses (Efron and Gong, 1983), a statistical strategy in which computing power is used to replace the assumptions of distribution underlying traditional statistical tests. Two bootstrap analyses were done, one to test the hypothesis that sex differences can arise as an artifact of dividing a sample into two groups, and another to assess the stability of differences given the rejection of the first hypothesis.

For the first analysis, groups were formed by randomly drawing values from the whole sample. As Figure 1 shows, this analysis indicated that gender differences in General

Competence are very unlikely tc be a by-product of dividing the sample.

Insert Figure 1 about here

The second analysis (in which the bootstrap samples were drawn from the original data separated by gender) indicated that the obtained sex differences in General Competence are quite stable: more than 68% of the bootstrap $\underline{t}$s exceed 2.0 (approximately the .05 level for a sample of this size).

Insert Figure 2 about here

Similar analyses indicated a stable sex difference on the projective variable Comforts, Inquires (it also exceeded the 68% mark), but more marginal reliability for Father Fire (which fell between 50% and 68%).

In conclusion, the different estimates of robustness were consistent with one another, and indicate that the gender differences found (especially in General Competence) are reliable.

Discussion

Consistent with the conclusions of Maccoby and Jacklin (1974), Maccoby and Martin (1983), and Huston (1983), the present study found relatively few differences in parenting between mothers and fathers. The differences that did emerge tended to appear at a fine level of analysis, and attenuated as items and variables were aggregated. However, the gender-linked differences found here are similar to those reported in other studies and are, moreover, theoretically important in the socialization of competence.

The findings that mothers are warmer, more responsive to child affect, and more concerned with supervision, while fathers stress competetiveness and tend to be more authoritarian have been reported in other studies using the Child Rearing Practices Q-Sort (Block, 1983) and are consistent with the studies reviewed by Huston (1983).

Some of these areas emerge again in analyses of differences by sex of child. Both parents in this study tend to be more strict, less warm, and less responsive to the affect of boys. Sometimes (as with the parent aggregate Father Firm) one parent predominates. These findings, too, are similar to those reported by other researchers (Baumrind, 1971; Block, 1983; Huston, 1983).

From the point of view of theory, these may be aspects of parenting that have important consequences for the

development of children's competence. Baumrind (1977), for instance, discusses learned helplessness as an unifying construct. In general, she says, parenting practices that are both too restrictive and too non-contingent are apt to have detrimental impacts on children's competence, since they both result in a learned lack of agency or effectiveness. The positive associations found in the present sample between parental warmth and responsiveness and children's competence in preschool (Roberts, 1983; Roberts and Strayer, in preparation) may well be due in part to the opportunities for learning social effectiveness that such parenting practices provide.

Learned helplessness may also have a differential impact on boys and girls. While warmth and responsiveness are important for the sample as a whole, the evidence suggests that boys may be more sensitive to variations in these aspects of parenting. Subtle differences in warmth (as noted in the analysis of the Q-sort items) may therefore contribute to the relative deficits in competence shown by boys. In addition, since both sexes showed important associations between parents' responses to emotional upset and child competence (see Roberts and Strayer, in preparation), differental parental responses in this area (also noted in the analysis of the Q-sort items) may be contributing to boys' relative deficit.

The evidence from Baumrind (1971, 1979) as well as others (Huston, 1983) indicates that the relative superiority in competence shown by girls in preschool is reversed by middle childhood. For Block (1983), early variations in the areas of socialization reported here (as well as in other areas) are closely linked to these middle-childhood deficits. If such factors are already operating in preschool (indeed, in infancy), how is the reversal in realtive competence to be explained?

Baumrind (1971) suggests that age-appropriate competencies in preschool are expected of girls no less than boys. With both genders experiencing basic socialization pressures for competence, early differences in parental warmth, abrasiveness, and responsiveness to upset might produce the relative deficits in boys' social functioning seen in Baumrind (1971) as well as in the present study. Deficits in social skills would in turn affect other aspects of competence (see Matas et al., 1979, for an example of the interaction between social and task-oriented competencies). However, by middle childhood the socialization forces discussed by Block (especially those that result in less interaction with the environment and more surveillance by adults) would produce the relative deficits in girls' competence seen then.

In conclusion, the gender-linked differences in socialization seen in the present sample are similar to those found by other researchers and are of the sort that may adversely affect boys social skills relative to girls. These deficits in social skills may then affect other aspects of overall functioning, producing the relative superiority of girls in General Competence that was found. Despite this superiority, some of the socialization trends discussed by Block (1983) seem to be present in this sample. These trends may eventually produce the realarenarencits in competence shown by girls in middle childhood.

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Table 1. Sex-of-parent differences on individual items from the Child Rearing Practices Q-Sort.

Item	Mean		p
	Mothers	Fathers	
I feel that it is good for a child to play competitive games.	3.4	4.8	<.001
I think a child should be encouraged to do things better than others.	2.7	3.5	.028
I make sure I know where my child is and what he is doing.	6.3	5.6	.037
I believe it is unwise to let children play a lot by themselfs without supervision from grown-ups.	3.7	2.7	.018
I believe that too much affection and tenderness can harm or weaken a child.	1.2	1.7	.051
I believe that scolding and criticism makes my child improve.	1.5	2.8	<.001
I sometimes tease and make fun of my child.	2.6	3.5	.042
I encourage my child to talk about his troubles.	6.3	5.7	.092
I watch closely what my child eats and when he eats.	5.5	4.7	.062
I prefer that my child not try things if there is a chance he will fail.	2.4	1.9	.058
I give my child a good many duties and family responsibilities.	3.3	4.0	.049

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Table 2. Sex-of-parent by sex-of-child interactions on individual items from the Child Rearing Practices Q-Sort.

Item	Means				p
	Mothers		Fathers		
	girls	boys	girls	boys	
I respect my child's opinions and encourage him to express them.	6.0	6.2	6.5	5.5	.024
I instruct my child not to get dirty while he is playing.	2.8	1.8	2.3	3.0	.013
I think children must learn early not to cry.	1.6	1.3	1.5	2.0	.073
I don't allow my child to tease or play tricks on others.	4.6	3.5	3.7	4.3	.051

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Table 3. Correlations between Child Rearing Practice Q-Sort items assessing discipline and abrasiveness.

Item	43	
	fathers	mothers
43. I have strict, well-established rules for my child.		
58. When I am angry with my child, I let him know it.	.35*	.03
64. I believe that scolding and criticism makes my child improve.	.42**	.12
38. I talk it over and reason with my child when he misbehaves.	-.42**	-.17

* $p < .10$

** $p < .05$

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Table 4. Mothers' and fathers' scores on family interaction measures (before aggregation).

Source	Variable	Means		p
		Mothers	Fathers	
self-report	Warmth	76.7	77.4	ns
	Involved as Parent	44.2	56.8	<.01
	Encourages Emotional Expression	75.1	69.7	ns
	Strict	44.9	48.3	ns
observation	Interacts with Child	7.1	6.2	ns
	Responsive	56.4	56.1	ns
	Directs (total)	2.2	1.9	ns
	Firm (lag)	22.8	18.4	ns
	Child complies (lag)	56.9	50.2	ns
projective	Comforts, inquires	1.7	1.6	ns
	Responds pragmatically	2.8	3.6	ns
	Enforces	1.3	1.2	ns

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Table 5. Sex-of-child differences on family interaction measures.

Source	Item/ Variable	Means		p
		girls	boys	
Child Rearing Practices Q-Sort				
	I often feel angry with my child.	2.9	4.1	.005
	I believe that a child should be seen and not heard.	1.5	2.0	.030
	I find some of my greatest satisfactions in my child.	6.1	5.3	.038
	I let my child make many decisions for himself.	5.5	4.7	.019
	I expect a great deal of my child.	3.4	4.3	.060
	I tend to spoil my child.	3.5	2.5	.037
	I talk it over and reason with my child when he misbehaves.	6.0	5.4	.071
	I have strict, well-established rules for my child.	3.6	4.5	.013
	I threaten punishment more often than I actually give it.	5.0	4.0	.054
	I believe children should not have secrets from their parents.	2.5	3.3	.004
	I encourage my child to be curious, to explore and question things.	6.6	6.1	.080
	I believe in praising a child when he is good and think it gets better results than punishing him when he is bad.	6.0	5.5	.091
	I try to keep my child from fighting.	5.2	4.8	.094
Observation	Father Firm	-.74	1.29	.047 (.091)[a]
Projective	Comforts, inquires	.58	.31	.027 (.048)
	Index	5.3	5.0	.038 (.017)

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a. values in parentheses are for a trimmed t analysis

Table 6. Correlations between aggregated measures of parenting and child competence.

Parenting	General Competence	
	boys	girls
Father Firm	.68**	.12
Mother Firm	.44	.29
Father Responsive	.90***	.21
Mother Responsive	.62**	.18

** $p < .05$

*** $p < .01$

Table 7. Gender differences on measures of competence.

Aggregate	Measure	Means		p	p (trim)
		girls	boys		
General Competence		1.6	-2.7	.043	.040
	Ego Strength[a]	70	64	ns	
	Peer Competence[a]	69	60	.085	.189
	r to criterion	.56	.34	.076	.054
	Purposive[b]	74	66	ns	
	Sociable	68	68	ns	
	Socially Effective	63	48	.013	.008
	Happy	76	58	.006	.014
Cooperative -Task Oriented		.7	-1.1	ns	
	Friendly[b]	70	65 (1)	ns	
	Cooperative[b]	66	63 (1)	ns	
	Achievement Oriented	72	53 (2)	.006	.008
	PPVT	114	109	ns	

Notes: p values are from a pooled t -test. p (trim) values are from a trimmed t analysis, a test of robustness in which the minimum and maximum values are deleted from each group. Aggregates sum the measures listed under them.

(1) Baumrind (1971) reports g> b, p<.01

(2) Baumrind (1971) reports g> b, p<.10

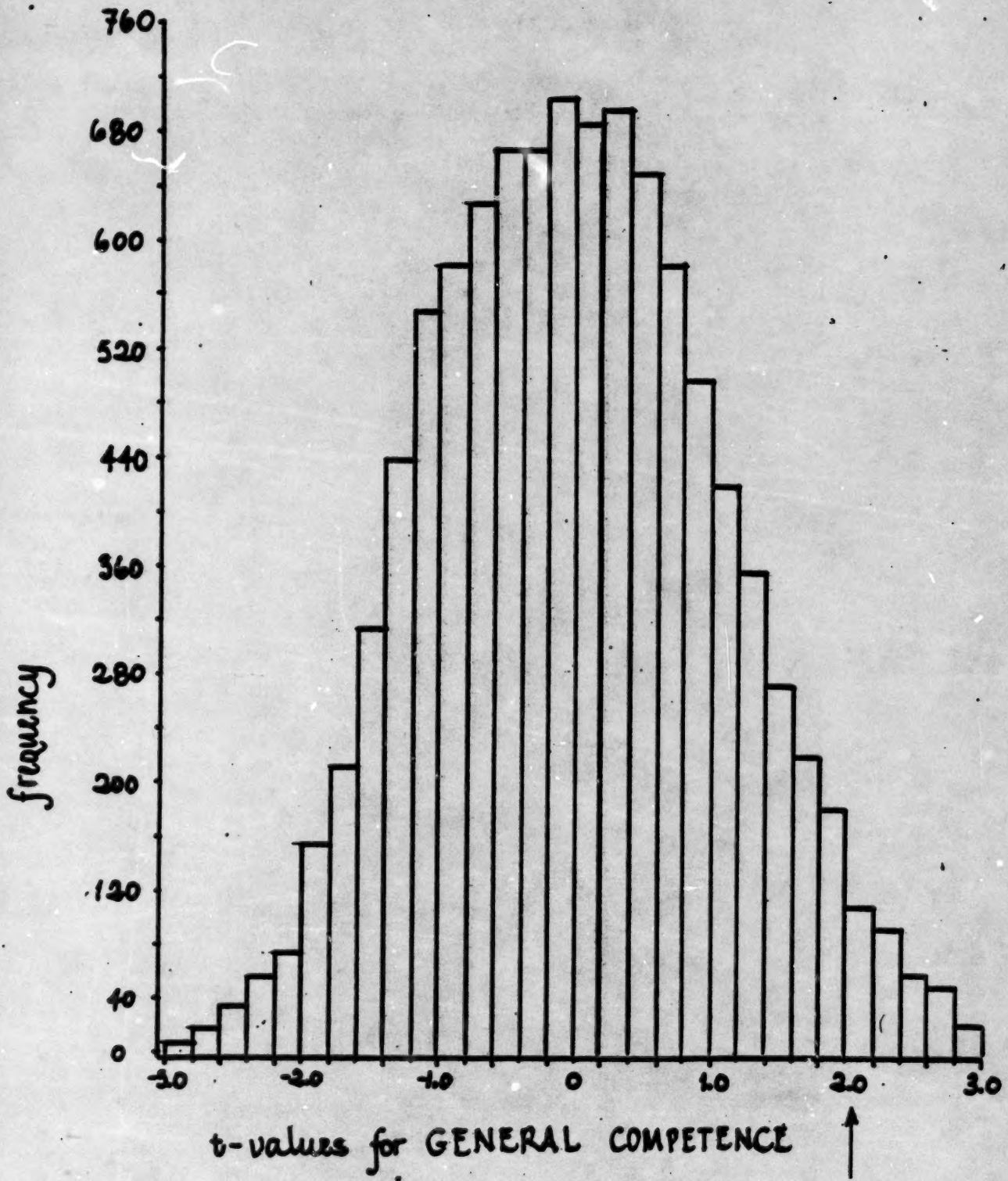
b. From Baumrind (1971)

a. from Waters, Wippman, and Sroufe (1979)

Figure Captions

Figure 1. Bootstrap values of *t* for General Competence; 10,000 samples drawn from the data as a single set.

Figure 2. Bootstrap values of *t* for General Competence; 10,000 samples drawn from the data divided by sex of child.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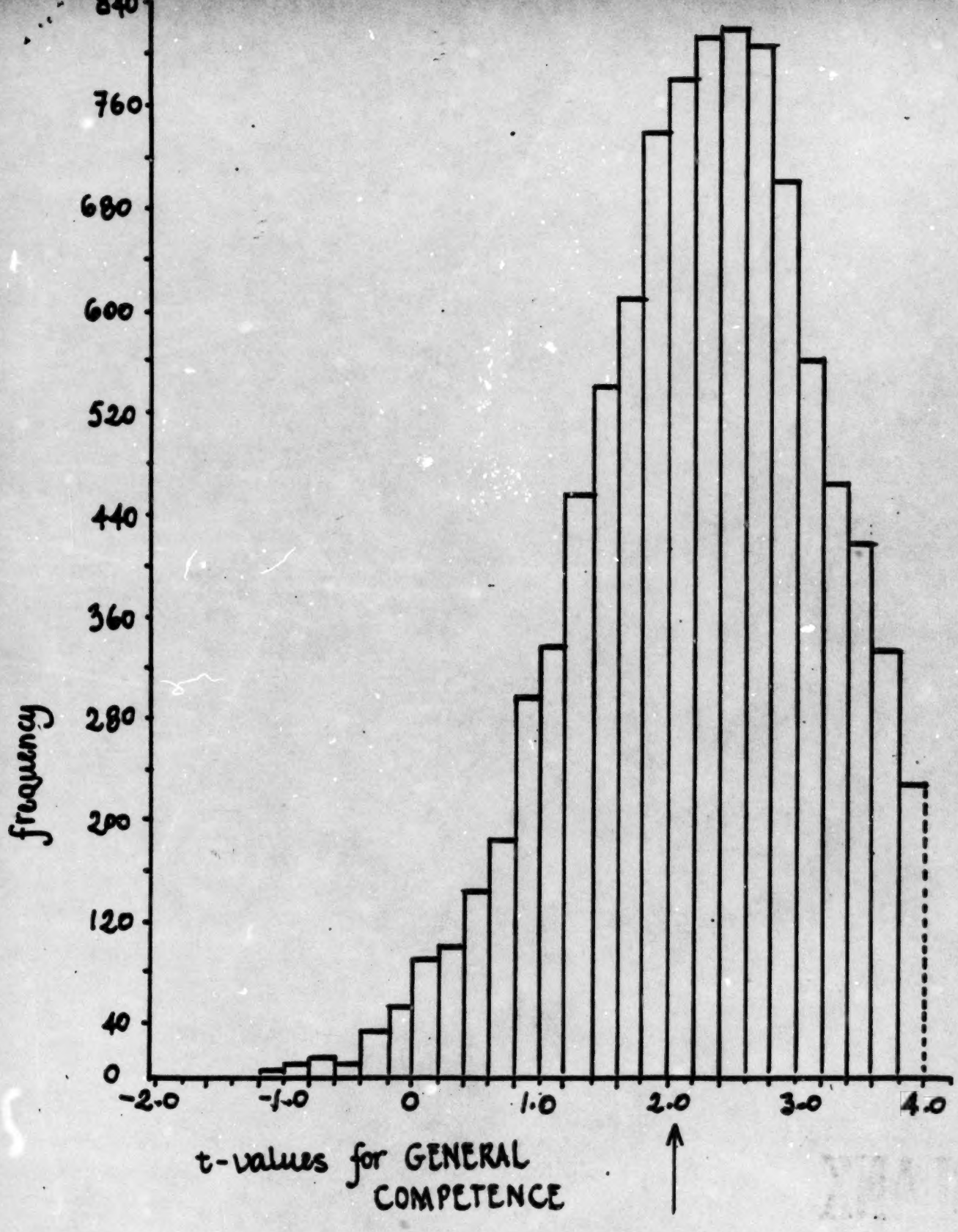
t-values for GENERAL COMPETENCE

Figure 1.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t-values for GENERAL COMPETENCE

Figure 2.